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EXAMINER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,643

Applicant(s)

TAYLOR, STEVE D.

Examiner

MATTHEW J. BROPHY

Art Unit

2191

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 10-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4 and 10-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 1/13/2006
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 5-9 have been canceled by a preliminary amendment filed October 7, 2005.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 21 recites the limitation "the fourth and fifth display container cells". There is insufficient antecedent basis for the "fifth display container cell" limitation in the claim.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The "end user interface" of these claims is interpreted to be directed to Computer Software *per se*. Computer Software *per se* is considered functional descriptive material and therefore non-statutory when not claimed in combination with sufficient structure to render the claim statutory. Please see MPEP §2106.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 and 10-32 are rejected under 35 U.S.C. 102(b) as being anticipated by 5,850,548 Williams et al hereinafter Williams.

Regarding Claim 1, Williams teaches: An end user interface (EUI) comprising: a first display container cell (e.g. Column 9, Lines 14-26, "As illustrated in FIG. 5A, the Visual Development System 230 of the present invention includes a development interface or work surface 500. The work surface 500, in turn, includes a main window 501, a Component Inspector Window 520, a Component Manager Window 530, and a Library Window 540. The main window 501 includes a menu bar 505 and a tool bar 510. Menu bar 505 includes user-selectable menu choices for invoking operations of the system. Tool bar 510 includes an array of screen buttons for one-click access to system commands. Other windows on the work surface 500 (e.g., window 540) may register their own tools with the tool bar or palette 510, for providing users with access to those tools from the main window 501."); a second display container cell nested within the first display container cell (e.g. Column 10, Lines 26-49, "Components are nestable to an arbitrary depth within the visual programming editor. Any component which contains other components is known as a "SuperComponent"; a component which is contained is a "sub-component." Nesting is illustrated in FIG. 6A. As previously described, Window1 (shown at 601) is manifested by Window object 610, at the level of the user interface. An additional element, such as an Edit box or Scroll bar, can be

added to the window 610. For instance, a new component--VisualComponent2 shown at 620--may be placed within the first Visual Component, VisualComponent1."); and a first action cell nested within one of said first and second display container cells, the first action cell being associated with causing at least a first action to be performed in association with or on behalf of at least one of a third display container cell and a fourth display container cell (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Regarding Claim 2, Williams teaches: wherein the first display container cell is a selected one of a root region container cell and a nested region container cell (e.g. Column 11, Lines 16-28, "The example will continue with an illustration of how the user connects one component to another, such as connecting the Scroll bar 617 to the Edit Field (so that movement of the Slider causes information to appear in the Edit Field). As VisualComponent2 620 and VisualComponent3 625 appear in VisualComponent1 630, as shown in FIG. 6C, it is not evident exactly what is

inside either one of the two components (i.e., the VisualComponent2 and the VisualComponent3 nested components). In other words, at this point the system has encapsulated the complexity of the nested components so that they do not manifest properties at this particular instance.”).

Regarding Claim 3, Williams teaches: wherein the second display container cell is a display container cell selected from a display container cell group consisting of a nested region container cell, a nested zone container cell, and a nested action cell pool container cell (e.g. Column 11, Lines 16-28, **“The example will continue with an illustration of how the user connects one component to another, such as connecting the Scroll bar 617 to the Edit Field (so that movement of the Slider causes information to appear in the Edit Field). As VisualComponent2 620 and VisualComponent3 625 appear in VisualComponent1 630, as shown in FIG. 6C, it is not evident exactly what is inside either one of the two components (i.e., the VisualComponent2 and the VisualComponent3 nested components). In other words, at this point the system has encapsulated the complexity of the nested components so that they do not manifest properties at this particular instance.”**).

Regarding Claim 4, Williams teaches: wherein the fourth display container cell is nested in the third display container cell (e.g. Column 11, Lines 16-28, **“The example will continue with an illustration of how the user connects one component to another, such as connecting the Scroll bar 617 to the Edit Field (so that movement of the Slider causes information to appear in the Edit Field). As VisualComponent2 620 and VisualComponent3 625 appear in VisualComponent1**

630, as shown in FIG. 6C, it is not evident exactly what is inside either one of the two components (i.e., the VisualComponent2 and the VisualComponent3 nested components). In other words, at this point the system has encapsulated the complexity of the nested components so that they do not manifest properties at this particular instance.” While this example of teaches 3 VisualComponents, it is inherent here that the could include several additional components, with multiple nesting of components).

Regarding Claim 10, Williams teaches: wherein the fourth display container cell is an invisible cell (e.g. Column 16, Lines 15-29, “The Edit class implements the IControlServer methods 1020: ClientSet, ParentWindow, CreatedSet, VisibleSet, DesigningSet, DimensionSet, DimensionGet, and StateGet. These methods provide functionality typically associated with a screen control such as an Edit field. Their names describe their functionality. For instance, DimensionSet sets the dimensions for an Edit control, based on passed-in Values for starting Location (x, y), Width (dx) and Height (dy). Similarly, VisibleSet specifies whether the control is currently visible in the user interface (at runtime). This is the interface through which the parent window (i.e., container) interacts with the control, for example, creating it, turning its visibility on or off, sets its dimensions, or the like. When the user re-sizes the Edit control during design, the parent window in turn makes one or more DimensionSet calls.”).

Regarding Claim 11, Williams teaches: wherein the first action cell is associated with causing a first action to be performed in association with or on behalf of both the

third container cell and the fourth container cell (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Regarding Claim 12, Williams teaches: wherein the first action cell is further associated with causing a second action to be performed in association with or on behalf of at least one of the third and the fourth container cell (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Regarding Claim 13, Williams teaches: wherein the first action cell is further associated with causing a second action to be performed in association with or on behalf of at least one of the third and the fourth container cell (e.g. **Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component."**).

Regarding Claim 14, Williams teaches: wherein the first action comprises performing an action selected from an action group consisting of adding a display container cell as a currently visible display contain cell among one or more other currently visible display container cell (e.g. **Column 9, Line 59 to Column 10, Line 10, "Throughout the user session, the work surface 500 is always "live." For instance, the Component Inspector Window 520 is updated to display specific information about the currently selected component (i.e., Window Component 551). In particular, the Component Inspector displays information about the component's Name, Caption, Position, Height, and the like. The user can easily modify a property by clicking on the desired property (e.g., "Caption" field) and**

entering in a new Value. Since the work space is always live, the component whose property has changed is immediately updated to reflect the newly entered Value. Any modifications made directly to the component (e.g., resizing window 560) are, in turn, immediately reflected by the Component Inspector 520; also shown, the Component Manager Window 530 is updated to display the new component, shown at 533. Since the system is always live, there is no "compile/link" cycle. Instead, properties and methods of components remain active at all times so that changes occurring in components take effect immediately. ") rendering a content, process a content (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.") and causing a script to be executed (e.g. Column 13, Lines 18-42, "Referring now to FIGS. 9A-B, a Program Viewer of the present invention will be described. Super components are the system's controllers. They support program viewers, such as the program viewer 900 shown in FIG. 9A, as the main viewers of the system. The Program Viewer 900

provides facilities for editing programs, either in script or graphical (visual) programming format. The Viewer 900 has two principal regions: a structure pane 910 and a programming pane 920. All program viewers share the structure pane, which provides a representation of the structure of the project being edited. The programming pane, on the other hand, contains the program itself, either in script (shown at 925) or visual programming (shown at 927) representation.”).

Regarding Claim 15, Williams teaches: wherein the first action comprises performing an action selected from an action group consisting of requesting a user action, requesting a local system action, and/or requesting a remote system action (e.g. column 4, Lines 40-45, “System 200 includes a user interface (UI) 240, preferably a graphical user interface (GUI), for receiving user commands and data. These inputs, in turn, may be acted upon by the system 100 in accordance with instructions from operating module 210, Windows 215, and/or application modules 220, 225. The UI 240 also serves to display the results of an operation, whereupon the user may supply additional inputs or terminate the session” or e.g. Column 11, Lines 29-40, “The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting “New Property” menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D.

Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component." Or Column 13, Lines 12-17, "The system allows multiple viewers to be opened on each component, with the system maintaining synchronization between the component and the various views. This is helpful in a multi-client environment, so that the program may be simultaneously edited from various machines. At all times, the end result of the work in progress appears on the screen of all clients.").

Regarding Claim 16, Williams teaches: wherein the first action cell has a plurality of associated attributes defining the first action cell, including attributes selected from a attribute group consisting of one or more structural attributes, one or more geometric attributes, one or more visual attributes, one or more policy attributes, and one or more behavior attributes (e.g. Column 11, Lines 29-40, **"The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").**

Regarding Claim 17, Williams teaches: wherein the first action comprises performing an action selected from an action group consisting of associating a defining attribute with a display container cell, modifying a defining attribute associated with a display container cell, and deleting a defining attribute associated with a display container cell (e.g. Column 11, Lines 29-40, "The user accesses the **VisualComponent3** (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Regarding Claim 18, Williams teaches: wherein the first action comprises performing an action selected from an action group consisting of adding one or more cells to the EUI, and deleting one or more cells from the EUI (e.g. Column 9, Line 59 to Column 10, Line 10, "Throughout the user session, the work surface 500 is always "live." For instance, the Component Inspector Window 520 is updated to display specific information about the currently selected component (i.e., Window Component 551). In particular, the Component Inspector displays information about the component's Name, Caption, Position, Height, and the like. The user

can easily modify a property by clicking on the desired property (e.g., "Caption" field) and entering in a new Value. Since the work space is always live, the component whose property has changed is immediately updated to reflect the newly entered Value. Any modifications made directly to the component (e.g., resizing window 560) are, in turn, immediately reflected by the Component Inspector 520; also shown, the Component Manager Window 530 is updated to display the new component, shown at 533. Since the system is always live, there is no "compile/link" cycle. Instead, properties and methods of components remain active at all times so that changes occurring in components take effect immediately. ").

Regarding Claim 19, Williams teaches: wherein the first action associated with the first action cell is associated based at least in part on one or more attributes of one or more of the display container cells within which the first action cell is nested (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Regarding Claim 20, Williams teaches: wherein the first action associated with the first action cell is associated based at least in part on one or more current state values of one or more of the display container cells within which the first action cell is nested (e.g. **Column 7, Lines 29-42, "Some components have more than one type of behavior and may reside in more than one hierarchy of objects. Conventional graphical user interface elements, such as screen buttons and the like, appear as simple, static rectangles in a "Logic View" of the program. In a "User Interface View," on the other hand, objects are shown having a more complex appearance (e.g., a push button or a spread sheet). The hierarchical location of controls in a window (i.e., inside child windows and group boxes) may have little or no bearing on their location in the Logic View. State diagrams may be constructed where the states and events correspond to components in the Logic View. The hierarchical structure of events and states in a state diagram do not necessarily appear in the same way in the Logic View."**).

Regarding Claim 21, Williams teaches: wherein the first action associated with the first action cell is an action to be performed in response to a structural exception event involving the at least one of the fourth and fifth display container cells (**Column 10, Lines 26-49, "Components are nestable to an arbitrary depth within the visual programming editor. Any component which contains other components is known as a "SuperComponent"; a component which is contained is a "sub-component."** Nesting is illustrated in FIG. 6A. As previously described, Window1 (shown at 601) is manifested by Window object 610, at the level of the user interface. An

additional element, such as an Edit box or Scroll bar, can be added to the window 610. For instance, a new component--VisualComponent2 shown at 620--may be placed within the first Visual Component, VisualComponent1. In a manner similar to before, the user can then proceed to create Edit Field 615, by selecting Edit Component 611 from the Library Palette. The act of creating Edit Field 615 causes the Edit Field to appear within the window 610. Thus, VisualComponent2 is a "sub-component" of VisualComponent1--that is, it is a component nested within VisualComponent1. Moreover, the act of creating VisualComponent2 within the VisualComponent1 window causes it (i.e., the Edit Field) to represent itself within the Window object 610, which is the visual component corresponding to Windowl 601. Thus as shown, Edit Field 615 appears within the boundaries of Window 610."0.

Regarding Claim 22, Williams teaches: wherein the EUI further comprises a second action cell associated with causing at least a second action to be performed in association with or on behalf of one or more nested container cells (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can

type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Regarding Claim 23, Williams teaches: A computing device implemented method comprising rendering a first display container cell of an end user interface (EUI) (e.g. **Column 9, Lines 14-26, "As illustrated in FIG. 5A, the Visual Development System 230 of the present invention includes a development interface or work surface 500. The work surface 500, in turn, includes a main window 501, a Component Inspector Window 520, a Component Manager Window 530, and a Library Window 540. The main window 501 includes a menu bar 505 and a tool bar 510. Menu bar 505 includes user-selectable menu choices for invoking operations of the system. Tool bar 510 includes an array of screen buttons for one-click access to system commands. Other windows on the work surface 500 (e.g., window 540) may register their own tools with the tool bar or palette 510, for providing users with access to those tools from the main window 501."**); rendering a second display container cell of the EUI nested within the first display container cell (e.g. **Column 10, Lines 26-49, "Components are nestable to an arbitrary depth within the visual programming editor. Any component which contains other components is known as a "SuperComponent"; a component which is contained is a "sub-component."** Nesting is illustrated in FIG. 6A. As previously described, Window1 (shown at 601) is manifested by Window object 610, at the level of the user interface. An additional element, such as an Edit box or Scroll bar, can be added to the window 610. For instance, a new component--VisualComponent2 shown at 620--may be

placed within the first Visual Component, VisualComponent1.”); and rendering an action cell of the EUI nested within one of said first and second display container cells, the action cell being associated with causing at least a first action to be performed in association with or on behalf of at least one of a third container cell and a fourth container cell **(e.g. Column 11, Lines 29-40, “The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting “New Property” menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as “Value” 655. Now, Value 655 is a property which may be accessed from outside the component.”).**

Regarding Claim 28, Williams teaches: A system comprising: a processor **(Column 4, Lines 25-26, “The present invention may be embodied on a computer system such as the system 100 of FIG. 1, which includes a central processor 101,”);** a display coupled to the processor **(Column 4, Lines 30, “a display device 106”);** and storage coupled to the processor **(Column 4, Lines 31-32, “and a non-volatile or mass storage 107 (e.g., hard or fixed disk, optical disk, magneto-optical disk, or flash memory).”,** and having stored therein instructions designed implement an end user interface for the system, the end user interface having a first display

container cell (e.g. Column 9, Lines 14-26, "As illustrated in FIG. 5A, the Visual Development System 230 of the present invention includes a development interface or work surface 500. The work surface 500, in turn, includes a main window 501, a Component Inspector Window 520, a Component Manager Window 530, and a Library Window 540. The main window 501 includes a menu bar 505 and a tool bar 510. Menu bar 505 includes user-selectable menu choices for invoking operations of the system. Tool bar 510 includes an array of screen buttons for one-click access to system commands. Other windows on the work surface 500 (e.g., window 540) may register their own tools with the tool bar or palette 510, for providing users with access to those tools from the main window 501."); a second display container cell nested within the first display container cell (e.g. Column 10, Lines 26-49, "Components are nestable to an arbitrary depth within the visual programming editor. Any component which contains other components is known as a "SuperComponent"; a component which is contained is a "sub-component." Nesting is illustrated in FIG. 6A. As previously described, Window1 (shown at 601) is manifested by Window object 610, at the level of the user interface. An additional element, such as an Edit box or Scroll bar, can be added to the window 610. For instance, a new component--VisualComponent2 shown at 620--may be placed within the first Visual Component, VisualComponent1."); and a first action cell nested within one of said first and second display container cells, the first action cell being associated with causing at least a first action to be performed in association with or on behalf of at least one of a third

container cell and a fourth container cell (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Regarding Claim 24, Williams teaches: wherein said rendering of the action cell is performed in view of a plurality of associated attributes of the action cell defining action cell, the associated attributes being attributes selected from a attribute group consisting of one or more structural attributes, one or more geometric attributes, one or more visual attributes, one or more policy attributes, and one or more behavior attributes (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property"

menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Regarding Claims 25 and 29, Williams teaches:, wherein the method further comprises performing the action in response to a user selection of the first action cell, and the action being an action selected from an action group consisting of adding a display container cell as a currently visible display contain cell among one or more other currently visible display container cell, rendering a content, process a content and causing a script to be executed (e.g. **Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").**).

Regarding Claims 26 and 30, Williams teaches: wherein the method further comprises performing the action in response to a user selection of the action cell, and the action being an action selected from an action group consisting of associating one

or more defining attributes with a display container cell, modifying one or more defining attributes associated with a display container cell, deleting one or more defining attributes associated with a display container cell, adding one or more cells to the EUI, and deleting one or more cells from the EUI (**e.g. Column 11, Lines 29-40, “The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays pop-up menu 652. The user may instruct the system to create a new property by selecting “New Property” menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as “Value” 655. Now, Value 655 is a property which may be accessed from outside the component.”**).

Regarding Claims 27 and 31, Williams teaches: wherein the method further comprises performing the action in response to a user selection of the action cell, and the action associated with the action cell is associated based at least in part on one or more attributes or one or more state values of one or more of the display container cells within which the action cell is nested (**e.g. Column 11, Lines 29-40, “The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the system displays**

pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component." And e.g. Column 7, Lines 29-42, "Some components have more than one type of behavior and may reside in more than one hierarchy of objects. Conventional graphical user interface elements, such as screen buttons and the like, appear as simple, static rectangles in a "Logic View" of the program. In a "User Interface View," on the other hand, objects are shown having a more complex appearance (e.g., a push button or a spread sheet). The hierarchical location of controls in a window (i.e., inside child windows and group boxes) may have little or no bearing on their location in the Logic View. State diagrams may be constructed where the states and events correspond to components in the Logic View. The hierarchical structure of events and states in a state diagram do not necessarily appear in the same way in the Logic View.").

Regarding Claim 32, Williams teaches: wherein the EUI further comprises a second action cell associated with causing at least a second action to be performed in association with or on behalf of one or more nested container cells (e.g. Column 11, Lines 29-40, "The user accesses the VisualComponent3 (i.e., access to its internal properties) by adding a new property to the component, as shown in FIG. 6C. The user requests property inspection of the Slider 651 which appears in the visual editor 650 (e.g., by right-clicking on it with a mouse cursor). In response, the

system displays pop-up menu 652. The user may instruct the system to create a new property by selecting "New Property" menu choice 653. The system, in response, displays a Property Object 654, as shown in FIG. 6D. Here, the user can type in a New Property, such as "Value" 655. Now, Value 655 is a property which may be accessed from outside the component.").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. BROPHY whose telephone number is . The examiner can normally be reached on Monday-Thursday 8:00AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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MJB

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/Wei Zhen/

Supervisory Patent Examiner, Art Unit 2191